



Used Tire Program Biennial Report



2014 - 2015



Message from the Director

Illinois EPA's Used Tire Program has been recognized nationally as a leader in the management of used and waste tires since its inception in 1990. Prior to passage of the Used Tire Management Act in 1992, there were as many as 20 million used tires in dumps and stockpiles throughout Illinois and little reuse or recycling of waste tires occurred in Illinois. Through the efforts of Illinois EPA and the other state agencies, more than 20 million used and waste tires have been removed from dump sites and properly reused or recycled. These efforts are funded through the Used Tire Management Fund via the tire user fee assessed to retail customers. As Illinois EPA is tasked with regulating the used tire industry, we continue to operate a strong inspection program where we average more than 1000 inspections annually at used tire sites throughout the state. However, as we have seen a decline in used tire markets in Illinois over the past decade, we see challenges ahead in addressing the illegal dumping of waste tires, particularly in Environmental Justice areas, and in promoting legitimate, diversified, and stable used tire markets for the more than 14 million used tires generated in Illinois annually.

Used and waste tires that are not managed properly present a threat to human health and the environment due to the threat of fire and mosquito proliferation. Improperly managed used and waste tires provide a breeding habitat for mosquitoes. In one breeding season, more than 1,000 adult mosquitoes can emerge from a single waste tire, if not managed properly. With the continued presence of the West Nile virus and a new threat posed by the Zika virus, the preventive and corrective actions taken by Illinois EPA are critical to ensure that used and waste tires do not contribute to the proliferation of disease-carrying mosquitoes, particularly those that are known carriers of various viruses that pose a real threat to human health. We will continue to work with the Illinois Department of Public Health and units of local government to ensure effective vector control measures are available and that used tires are managed properly so as not to pose a threat to human health.

In the coming years, we will focus on the implementation of newly adopted and more effective regulations governing the management of used and waste tires, the issuance of used tire storage/processing permits for large commercial processors, continued enforcement efforts at illegal waste tire dumps, and support for establishing strong, stable and diverse used tire market for Illinois' used tire generation. We believe the efforts, conducted in conjunction with the activities of other state agencies funded by the Used Tire Management Fund, will result in the safe and effective management of used tires that are properly reused and recycled throughout Illinois. In addition to these traditional program activities, the Illinois EPA's Used Tire Program has completely revamped our web site to provide valuable information to the used tire industry as well as the general public.

Illinois EPA strives to be at the forefront of state used tire programs by ensuring that all waste tire dumps are properly remediated, the used tire industry complies with established used tire management standards, used and waste tires do not pose a threat to human health or the environment, and that end-use markets exist for used tires generated in Illinois. I encourage you to visit our web site for more information on our Used Tire Program and used tire resources available to citizens and businesses in Illinois.

Lisa Bonnett, Director
Illinois EPA

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Abbreviations/Acronyms

The Act	Environmental Protection Act
Illinois EPA/The Agency	Illinois Environmental Protection Agency
The Board	Illinois Pollution Control Board
TDA	Tire-Derived Aggregate
TDF	Tire-Derived Fuel



www.epa.illinois.gov/topics/waste-management/waste-disposal/used-tires/index

Mission

It is the mission of the Illinois EPA Used Tire Program:

- 1) to ensure that used tires are managed in compliance with all environmental requirements so as to prevent the existence of breeding habitats for disease-carrying mosquitoes and minimizes the threat of tire-related fires;
- 2) to ensure improperly managed used and waste tires are removed from the environment for beneficial reuse, recovery or recycling; and
- 3) to promote the existence of sound, stable and legitimate markets for used tires in Illinois.

Definitions

- ◆ *“Used Tire”* means a worn, damaged or defective tire which is not mounted on a vehicle wheel rim.
- ◆ *“Waste Tire”* means a used tire that has been disposed.

Highlights & Accomplishments

- ◆ West Nile virus crisis starts in 2002. It continues to be a potentially serious health threat in Illinois. The most common mosquito found in tires holding stagnant water is also the primary carrier of the West Nile virus.
- ◆ Public Act 98-0656 was signed into law on June 19, 2014, directing Illinois EPA to promulgate revised regulations, requiring permits for large used tire storage/processing facilities, strengthening enforcement provisions for financial assurance requirements, and providing additional authority to Illinois EPA for used tire market development activities.
- ◆ New used tire management standards adopted by the Illinois Pollution Control Board on September 8, 2015.
- ◆ Illinois EPA continues to partner with units of local government and local law enforcement officials to monitor and prosecute violations related to the management, illegal transportation, and open dumping of used and waste tires. This partnership is particularly critical in Environmental Justice areas, where the illegal transportation and open dumping of used and waste tires is of particular concern.
- ◆ Illinois EPA continues to support the creation of used tire markets in Illinois.
- ◆ More than 3,500 used and waste tire inspection activities occurred during the last two years.
- ◆ More than 20,000 tons of used tires (the equivalent of 1.6 million passenger car tires) were utilized in state-funded civil engineered applications to address serious environmental threats at abandoned Illinois landfills.

Used Tire Program Activities

The Illinois EPA's Used Tire Program was established in 1990 and is funded via the tire user fee assessed on retail tire customers. The fee, collected by tire retailers and deposited into the Used Tire Management Fund via the Illinois Department of Revenue, is the funding source for several state agencies that have responsibilities related to used tires as identified under Section 55.6 of the Environmental Protection Act. Illinois EPA has three primary responsibilities related to used and waste tires: 1) to undertake preventive, corrective, or removal actions at used and waste tire dumps; 2) to perform inspections and enforcement activities at used and waste tire sites; and 3) to promote the development and maintenance of end-use markets for used and waste tires generated in Illinois.

BEFORE



AFTER



Cleanup Program

The statutory and regulatory basis for the Used Tire Program is found in Title XIV of the Environmental Protection Act and 35 Ill. Adm. Code Part 848: Management of Used and Waste Tires respectively. Pursuant to Section 53.b of the Act, the purpose of the Used Tire Program is as follows:

1. to ensure that used and waste tires are collected and are put to beneficial use or properly disposed of;
2. to provide for the abatement of used and waste tire dumps and associated threats to the public health and welfare;
3. to encourage the development of used and waste tire processing facilities and technologies, including energy recovery; and
4. to provide for research on disease vectors associated with used and waste tires, and the diseases they spread.

Cleanup Program, Continued

Over the past two years, Illinois EPA has focused our used and waste tire removal activities on assisting units of local government with the removal and proper disposal of waste tires collected from public and abandoned properties. During calendar years 2014 and 2015, Illinois EPA conducted more than 56 used tire collection events for units of local government, resulting in the removal and proper disposal, reuse, or recycling of more than 2,417 tons of used and waste tires. In addition, Illinois EPA conducted 15 consensual tire removals in 2014, which resulted in the removal and disposal of more than 227 tons of used and waste tires. Most of the used and waste tires collected by Illinois EPA are shredded for use as tire-derived fuel in cement kilns and in the public and private utility sector.

As the Agency has eliminated existing waste tire accumulations and stockpiles through numerous and various types of removal actions over the past 20-25 years, we are now focusing on monitoring, local assistance, and enforcement to address newly generated stockpiles. We have phased out Agency-sponsored public collections and consensual tire removals in favor of providing assistance to units of local government to help them with their waste tire disposal needs.

Non-Consensual Waste Tire Removals

If conditions at a used tire storage or disposal site pose an immediate threat to human health or the environment, Illinois EPA has enforcement authorities to mitigate the problem. We have utilized the traditional enforcement process to hold the property owner and operator responsible through legal means. In many instances, we have partnered with local enforcement authorities to utilize shared resources and closely monitor these illegal dump sites to obtain the most expeditious removal action possible. Effectively and efficiently addressing illegal used and waste tires sites continues to be a top priority for the Agency.

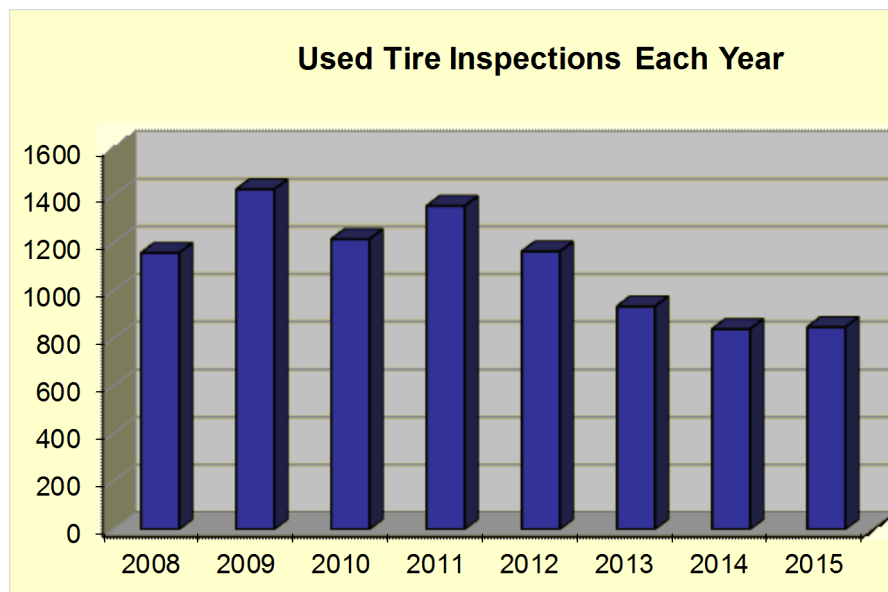


Regulatory Program

The Illinois EPA's Used Tire Program conducts a used and waste tire inspection program that focuses on tire processors, storage facilities, disposal sites, generators (retailers), and transporters. Illinois has the following approximate types and numbers of used tire facilities:

- more than 3,500 generators/retailers
- more than 450 transporters
- more than 260 storage facilities
- more than 30 processors

The Agency inspects large storage and processing facilities at least twice per year. In addition, tire disposal sites are inspected and targeted for appropriate removal action, typically through enforcement or a tire removal agreement. Used tire transporters are addressed through the Illinois EPA's Tire Transporter Audit Strategy. The Agency averages more than 1,000 inspections annually at regulated used tire facilities.



Used Tires and West Nile virus/Zika virus

Improperly-managed used and waste tires present a public health threat by providing a prime breeding habitat for disease-carrying mosquitoes. Adult mosquitoes lay eggs in the stagnant water present in used and waste tires. When organic matter (leaves, grass, etc.) are present in the stagnant water, mosquito eggs can develop into adults. The mosquito species most often present in used and waste tires, *Culex pipiens* (Northern House Mosquito), is the primary carrier of the West Nile Virus. In addition, *Aedes aegypti* and *Aedes albopictus* (Asian Tiger Mosquito) are known carriers of Zika virus. Due to the link between the improper management of used and waste tires and the proliferation of mosquito-related diseases, the Agency routinely monitors used tire sites throughout Illinois for compliance with statutory and regulatory used tire management standards to ensure that mosquito proliferation does not occur as a result of poor tire management.



Illinois EPA continuously strives to increase public awareness of the public health threat that improperly managed used and waste tires present. As part of this effort, Illinois EPA conducts a used tire collection program for units of local government to remove and properly dispose of used and waste tires collected from public and abandoned properties. Illinois EPA encourages citizens and units of local government, as well as law enforcement authorities, to monitor and report suspected sites that may present a threat to public health. Through these efforts, we can help minimize the occurrence of mosquito-related diseases in Illinois.

Other Program Highlights

Illinois EPA has begun the process of permitting large used tire storage and processing facilities to help ensure these facilities operate in compliance with environmental requirements and do not pose a threat to human health and the environment.



In addition, the Agency registers and monitors more than 450 used tire transporters to ensure the proper transportation and recycling/disposal of the approximately 14 million used tires generated annually in Illinois.

Illinois EPA also evaluates tire retailers for compliance with The Environmental Protection Act requirements relating to collection of the \$2.50 user fee from retail customers, and submittal of the fee to the Illinois Department of Revenue via quarterly tax returns. This statutorily-mandated fee is critical to the State's ability to regulate the used tire industry, monitor and ensure the elimination of waste tire dumps, ensure the proper reuse and recycling of used tires, and fund efforts for public education/awareness and research related to the proliferation of mosquito-related diseases.

Illinois EPA continues to promote legitimate markets for used tires and to educate all Illinoisans on the proper reuse and recycling of used tires. The development of legitimate used tire markets facilitates the proper reuse and recycling of used tires, and reduces the incidence of open dumping and processor non-compliance.

Used Tire Market Development

Illinois EPA has been actively involved in a partnership between U.S. EPA, states, industry, and academia whose purpose is to eliminate waste tire stockpiles nationwide and increase the sound management and reuse/recycling of used tires via beneficial end-use markets. As used tire markets have declined in Illinois over the past decade, we have seen a continued incidence of open dumping, particularly in areas where resources to control and address the problem are limited. This results in the local population being disproportionately affected by the human health threat posed by disease-carrying mosquitos. The lack of adequate used tire markets also results in an increased rate of compliance issues at commercial used tire processors, often resulting in the expenditure of additional State resources to address those issues. Therefore, the development of used tire markets is a key priority for Illinois EPA.

There are three major categories of markets for used tires in the United States. They are:

Tire-Derived Fuel (TDF)

Whole or shredded tires (typically 2 inch chips) are used as a supplemental fuel source in:

- ◆ Public and private utility boilers
- ◆ Cement kilns
- ◆ Pulp and paper mills

Tire-Derived Aggregate (TDA) in Civil Engineering Applications

Shredded tire chips (typically 4-6 inches in size) are utilized in a variety of civil engineering applications, including:

- ◆ Lightweight fill in road construction projects over weak soils
- ◆ Leachate collection/drainage and gas migration/collection systems in landfill construction and remediation projects
- ◆ Septic field drainage medium
- ◆ Vibration damping layer under light rail lines
- ◆ Backfill material for residential and commercial foundation walls
- ◆ Various other civil engineering applications in development

Crumb (Ground) Rubber

- ◆ Field turf top dressing on athletic fields
- ◆ Playground flooring in loose or pour-in-place applications
- ◆ Raw material for production of molded rubber products
- ◆ Rubberized asphalt for parking lots, bike paths and roadways
- ◆ educate the public and state DOTs on the benefits of using rubberized asphalt
- ◆ identify barriers to and champions of RMA use

Used Tire Processing



Used Tire Markets



Rubber Mulch



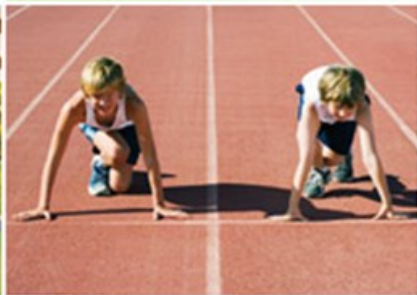
Rubber Truck Flaps



Rubber Stall Mats



Rubber Playground Surfaces



Rubber Athletic Tracks



Rubber Mats



Rubberized Asphalt



Rubber Auto Parts



Rubber Shingles

Used Tire Management Standards Rulemaking

On September 8, 2015, the Illinois Pollution Control Board (“Board”) revised the used tire management standards under 35 Illinois Administrative Code Part 848. These amendments were the result of a six-month project by Illinois EPA to develop proposed rules to present to the Board. The Board held public hearings in Springfield and Chicago to discuss the proposed rules and address questions from the Board and the general public. The purpose of the rulemaking was to clarify certain portions of the regulations that were vague and confusing, make the standards consistent with used tire storage guidelines established by the International Fire Code (IFC), eliminate the presence of mosquito larvae in used tires located at storage/processing facilities, and provide standards for the issuance of permits for large used tire storage and processing facilities.

Significant components of the rulemaking included:

- ◆ prohibiting the accumulation of water in any used tire in Illinois;
- ◆ clarifying used tire stockpile management standards (i.e. storage unit dimensions, aisle space between storage units, etc.);
- ◆ creating a Tire Tracking Receipt requirement to track used tire shipments from “cradle to grave”;
- ◆ creating an Annual Tire Tracking Report requirement for all registered used tire transporters;
- ◆ establishing stricter standards for tire transporters to ensure proper registration and transportation of used tires;
- ◆ clarifying and simplifying exemptions for tire retreaders and stamping and die-cutting facilities;
- ◆ clarifying financial assurance requirements for large storage facilities;
- ◆ creating rules governing the submission, review, and issuance of used tire permits at large used tire storage/processing facilities.

The newly adopted used tire rules are available on the Board’s web site at:

<http://www.ipcb.state.il.us/documents/dsweb/Get/Document-12203>

Future Priorities

- ◆ Illinois EPA will continue to conduct used tire inspections at tire retailers and other used tire generators, storage/processing facilities, and tire transporters to monitor compliance with the newly adopted Part 848 used tire management standards;
- ◆ Illinois EPA has begun the process of permitting large storage and commercial processing facilities to ensure all facilities required to obtain a permit have a permit in place by the statutory deadline of July 1, 2016;
- ◆ Illinois EPA will continue to work with units of local government to address used and waste tire issues within their jurisdiction by 1) investigating complaints regarding improper management of used tires and illegal waste tire accumulations; 2) continuing to assist units of local government with waste tires collected from public and abandoned properties within their respective jurisdictions; and 3) continuing our partnership with local law enforcement officials to address enforcement issues related to the open dumping of waste tires and the operation of illegal used and waste tire sites;
- ◆ Illinois EPA will analyze the current state of used tire markets in Illinois;
- ◆ Illinois EPA will facilitate the creation and implementation of a statewide used tire market development plan/program;
- ◆ Illinois EPA will develop and implement a salvage yard monitoring strategy to address used and waste tire issues at junk yards, scrap yards, and auto recycling facilities;
- ◆ Illinois EPA will continue to ensure that the required tire user fee is collected and submitted to the State by tire retailers;
- ◆ Illinois EPA will closely monitor used tire transporters, large used tire storage sites and commercial used tire processors to ensure those facilities operate in compliance with their permit and applicable environmental requirements; and
- ◆ Illinois EPA will continue to work with the Illinois Department of Public Health and units of local government to ensure that improperly managed used and waste tires do not contribute to mosquito proliferation and an increased occurrence of mosquito-related diseases.

To obtain copies of environmental regulations:

Illinois Pollution Control Board

Phone: 217/524-8500

www.ipcb.state.il.us

To contact the Illinois EPA Used Tire Unit:

Phone: 217/785-8604

Fax: 217/782-9308

<http://www.epa.illinois.gov/topics/waste-management/waste-disposal/used-tires/index>

Illinois EPA Regional Offices

To report used tire complaints please contact your local Illinois EPA regional office:

Rockford Region

4302 North Main Street
Rockford, Illinois 61103
815/987-7760

Counties Served:

Boone, Bureau, Carroll, DeKalb, Jo Daviess, LaSalle, Lee, Ogle,
Putnam, Stephenson, Whiteside, Winnebago

Des Plaines Region

9511 West Harrison Street
Des Plaines, IL 60016
847/294-4000

Counties Served:

Cook, DuPage, Grundy, Kane, Kankakee, Kendall, Lake,
McHenry, Will

Peoria Region Counties Served:

412 SW Washington Street
Peoria, Illinois 61602
309/671-3022

Fulton, Hancock, Henderson, Henry, Knox, McDonough,
Marshall, Mercer, Peoria, Rock Island, Stark, Tazewell,
Warren, Woodford

Champaign Region

2125 South First Street
Champaign, Illinois 61820
217/278-5820

Counties Served:

Champaign, Clark, Coles, Crawford, Cumberland, DeWitt,
Douglas, Edgar, Effingham, Ford, Iroquois, Jasper, Livingston,
McLean, Macon, Moultrie, Piatt, Shelby, Vermilion

Springfield Region

1021 N. Grand Ave. East
Springfield, Illinois 62702
217/785-8604

Counties Served:

Adams, Brown, Calhoun, Cass, Christian, Greene, Jersey, Logan
Macoupin, Mason, Menard, Montgomery, Morgan, Pike,
Sangamon, Schuyler, Scott

Collinsville Region

2009 Mall Street
Collinsville, Illinois 62234
618/346-5120

Counties Served:

Bond, Clinton, Fayette, Madison, Marion, Monroe, Randolph
St. Clair, Washington

Marion Region

2309 West Main Street
Marion, Illinois 62959
618/993-7200

Counties Served:

Alexander, Clay, Edwards, Franklin, Gallatin, Hamilton, Hardin
Jackson, Jefferson, Johnson, Lawrence, Massac, Perry, Pope,
Pulaski, Richland, Saline, Union, Wabash, Wayne, White,
Williamson

The 2014-2015 Used Tire Program Biennial Report is produced by the
Illinois Environmental Protection Agency
Lisa Bonnett, Director